Penile Mondor’s disease (superficial thrombophlebitis of the dorsal vein of the penis) is an important clinical diagnosis that every family practitioner should be able to recognize. Although penile Mondor’s disease is rare, proper diagnosis and consequent reassurance can help to dissipate the anxiety typically experienced by patients with the disease. This article describes the symptomatology, diagnosis, and treatment of superficial thrombophlebitis of the dorsal vein of the penis.

(Key words: Mondor’s disease, superficial thrombophlebitis)

A 22-year-old white man visited his family physician’s office, concerned that he might have a hernia. This concern arose from the discovery of a painful mass on the dorsal aspect of his proximal penis. The pain, described as “throbbing and aching,” began 1 week before his visit to the medical office and had lasted 3 to 4 days before resolving. The patient reported that he did not have penile discharge, hematuria, dysuria, fever, sexual dysfunction, or increased pain with an erection. In addition, he denied any history of recent vigorous sexual activity or trauma of any kind to his penis. He had never experienced this condition before, and he denied ever being infected with a sexually transmitted disease.

The patient reported a history of congenital hypospadias, and his surgical history included correction of the condition when he was a toddler. Otherwise, his medical history was unremarkable. He was taking no medications at the time he presented with his complaint of a painful mass. His family history yielded no helpful information. The patient reported that he abused neither alcohol nor any other drugs and said that he did not smoke.

Physical examination revealed a healthy young man in no apparent distress. A thin, rosy cord was palpated superficially on his dorsal proximal penis. This cord included a dilated portion of approximately 0.5 cm in diameter. This indurated cord could be followed superiorly and extended into his pubic hair region by 2 cm to 3 cm. The cord was tender when palpated, and the overlying skin was completely intact with no erythema. Examination revealed no signs of lymphadenopathy in the groin region. A mild degree of hypospadias was present, as was a grade II varicocele on the left side. There were no signs of a direct or indirect hernia.

The diagnosis indicated superficial dorsal vein thrombophlebitis. Supportive care was initiated, including a prescription for 50 mg of oral indomethacin to be taken three times a day. In addition, the patient was instructed to take a single 325-mg coated aspirin daily for anticoagulation and 250 mg of oral cefazolin four times daily for prophylaxis. The patient was reassured of the benign nature of his condition and was instructed to refrain from sexual activity until the problem had resolved. He was scheduled for a follow-up appointment in 1 week.

The patient returned 1 week later and reported no improvement. In fact, the pain had returned, and he now had 20- to 30-minute episodes of throbbing pain once or twice a day. He relieved this pain by placing an ice pack on the affected area. He had stopped taking the indomethacin because of morning headaches, and he did not wish to attempt a retrial. A 400-mg dosage of ibuprofen to be taken orally every 6 hours was prescribed to replace the indomethacin. At this visit, the patient was questioned again about whether he had engaged in vigorous sexual activity, which he again denied. He did reveal that 1 month prior to the start of his pain, he had begun wearing a tool belt at work. This belt was noticeably bothersome to the patient and even caused some minor bruising around his waistline. An ultrasound examination of the dorsal penile vein demonstrated a noncompressible section that was diagnostic for a thrombosed superficial dorsal penile vein (Figure). The patient was referred to a urologist, who concurred with the diagnosis and the management plan already in place.

The patient was seen again the next week, which was 3 weeks after the first episode of pain, and he reported a noticeable decrease in size of the thrombosed vein. In addition, the painful episodes had decreased dramatically in frequency and severity. He was instructed to avoid wearing a tool belt to avoid recurrence and to take the ibuprofen as needed for pain. Aspirin was discontinued at that time. The importance of refraining from sexual intercourse until the thrombosis resolved was reiterated. The patient was instructed to return in 2 months if the thrombophlebitis did not resolve. This visit proved to be unnecessary because his lesion resolved completely prior to the end of that 2-month period.
Mondor's disease was originally diagnosed in 1939 as a superficial venous thrombosis of the thoracoepigastric vein in women. In 1958, Braun-Falco applied this diagnosis to the superficial dorsal vein of the penis as well. While penile Mondor's disease is rare, it is believed to be more common than is suggested by the mere 42 cases documented in the literature. One reason for the scarcity of literature regarding this condition may be because patients are reluctant to seek medical care, especially if they associate their condition with deviant behavior. Correctly diagnosing this benign condition is imperative so that the physician can allay the patient's fears of having a sexually transmitted disease, erectile dysfunction, or cancer.

Many predisposing factors can lead to the development of penile Mondor's disease. These factors all relate back to Virchow's triad of vessel wall damage, stasis, and a hypercoagulable state. It may be that our patient had a history of congenital hypospadias with a surgical repair, which lowered his threshold for thrombosis. Typically, however, patients will provide a history of vigorous sexual intercourse within the week preceding the development of symptoms. Other causes of penile Mondor's disease include injection of illegal substances into the dorsal vein, venous compression due to a tumor or distended bladder, infection, clamps or sexual devices, and neoplastic disease.

In the case of this patient, a tool belt worn around the waist caused venous pooling and vessel trauma, which resulted in thrombosis. Penile Mondor's disease can be diagnosed from the information obtained during the history and physical examination. Patients consistently present with a rope-like cord on the dorsum of the penis. The cord is the thrombosed dorsal vein, which has become thickened and adherent to the overlying skin. Often, the lesion will extend superiorly into the suprapubic area. The vein may appear to be swollen and erythematous. The patient will report having a significant amount of pain, which can be either episodic or constant. Symptoms typically last from 6 to 8 weeks and resolve completely. There is no evidence of any long-term sequelae from this disease.

Sclerosing lymphangitis and Peyronie's disease both need to be considered in the differential diagnosis of a painful, fibrotic lesion of the penis. Sclerosing lymphangitis is characterized by thickened and dilated lymphatic vessels whose morphology is serpiginous. Peyronie's disease results from a thickening of the tunica albuginea and presents as a well-defined fibrotic plaque on the penis. If doubt persists even after taking the history and performing the physical examination, consider ultrasonography. Mondor's disease can typically be distinguished from sclerosing lymphangitis and Peyronie's disease by conducting an ultrasound examination of the dorsal vein. If the vein appears noncompressible, this is consistent with the diagnosis of venous thrombosis.

Several methods of treating penile Mondor's disease have been proposed, none of which has been shown to significantly decrease disease duration. Anticoagulation with heparin, aspirin, or other antiplatelet agents will not expedite healing and is not necessary to prevent additional thrombosis. Currently, treatment is palliative for most patients. However, antibiotic therapy should be administered when cellulitis is suspected, and vein stripping may be necessary for severe, persistent cases of Mondor's disease. Injection of 0.5% bupivacaine hydrochloride subcutaneously in the region surrounding the affected vein has provided relief to patients who are in acute pain. Care should be taken to avoid injecting patients who have signs of infection, as this may exacerbate their condition.

Nonsteroidal anti-inflammatory drugs have been used in an effort to dampen the inflammatory component of the phlebitis and provide pain relief for the patient. We opted to treat our patient with 50 mg of indomethacin to be taken orally three times a day. He found compliance with this course of treatment difficult; however, because of resultant head-
aches—a common side effect of indomethacin. As an alternative, we prescribed 400 mg of ibuprofen every 6 hours. After being on ibuprofen for a week, the patient noticed a definite improvement of his symptoms, and a near-complete resolution of the Mondor’s disease occurred within 3 weeks of his initial visit.

Evidence suggests that men who acquire penile Mondor’s disease once are predisposed to having recurrent episodes. Therefore, physicians should emphasize with such patients the need to eliminate risk factors to help prevent recurrent episodes. Any object that rests on the suprapubic region, for example, should be avoided. Tool belts, money belts, and electric guitars are just a few examples. Such restrictions may cause occupational problems, so the physician must take the time to educate both the patient and employer about the nature of the disease and preventing its recurrence. Patients also should avoid sexual devices or practices that are capable of causing venous stasis and injury to the penis.

References


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